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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,273	08/21/2003	Kurt M. Sanger	82651NAB	7238

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EXAMINER	
RICHER, AARON M	

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/645,273	SANGER, KURT M.	
	Examiner	Art Unit	
	Aaron M. Richer	2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 4, 2005 have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 1, 19, and 37 have been considered but are moot in view of the new ground(s) of rejection.

2. Further, applicant argues that neither Bresler nor Lin teaches sampling additional sets of multilevel pixels at a preset sample rate. The examiner notes that only Lin was relied upon in the first Office Action to teach this limitation and that col. 9, lines 40-55 do teach sampling multilevel pixels at a preset sample rate, and the motivation for combining this with Bresler is to eliminate moiré as disclosed in col. 4, lines 57-60 of Lin.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 7-11, 13, 15, 19, 25-29, 31, 33, 37, 43-47, 49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bresler (U.S. Patent 6,115,140) in view of Lin (U.S. Patent 5,553,171) and further in view of Dohnomae (U.S. Patent 6,072,588).

5. As to claims 1, 19, and 37, Bresler discloses a method for adjusting dot-gain for a halftone binary bitmap file comprising the steps of:

inputting a halftone binary bitmap tile comprising binary pixels to a digital filter (col. 3, lines 48-61);

filtering the binary pixels with the digital filter generating a weighted sum of the binary pixels producing a first set of multilevel pixels (col. 3, lines 48-61; the descreening process filters halftone pixels into multilevel pixels by definition);

filtering the binary pixels with a second digital filter producing a second set of multilevel pixels (col. 3, lines 38-47; a dilation filter is used);

using the first multilevel pixels and comparing to the threshold level for the set of sampled multilevel pixels and generating a binary pixel output (col. 3, lines 62-67; col. 4, lines 1-5; a variable is compared to two different values to decide which shall be used; this reads on a threshold value); and

collecting the binary output and forming an adjusted halftone binary bitmap (col. 3, lines 38-47; a final halftone image is produced).

Bresler does not disclose sampling the second set of multilevel pixels at a preset sample rate identifying a set of sampled multilevel pixels. Further, Bresler discloses using lookup tables to store specifications of the color conversion process, but does not disclose inputting a set of sampled multilevel pixels. Lin, however, discloses sampling a set of multilevel pixels (col. 4, lines 57-67; col. 5, lines 1-5; col. 9, lines 40-55) and using lookup tables to process images (col. 7, lines 45-67; col. 8, lines 1-14). The motivation for this is to eliminate moiré during a halftone resolution change (col. 4, lines 57-60). It would have been obvious to one skilled in the art to modify Bresler to sample multilevel

pixels at a preset sample rate in order to eliminate moiré in a halftone resolution change as taught by Lin.

Neither Bresler nor Lin disclose passing the adjusted halftone bitmap directly to a proofing system. Dohnomae, however, discloses a method of outputting a hard copy to a proof printing machine that approximates a printed document's image structure (col. 3, lines 63-67; col. 4, lines 1-3). The motivation for this is to reproduce peculiar colors and patterns accurately (col. 4, lines 4-20). It would have been obvious to one skilled in the art to modify Bresler and Lin to pass an image to a proofing system that approximates a printed document in order to reproduce any image accurately as taught by Dohnomae.

6. As to claims 7, 25, and 43, none of Bresler, Lin, or Dohnomae expressly discloses a method wherein a halftone binary bitmap file is generated by a raster image processor. Official notice has been taken of the fact that using a raster image processor to generate a bitmap is well-known in the art (see MPEP 2144.03). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to use a raster image processor to generate a bitmap in order to convert a vector image into an image that can be manipulated and printed as a bitmap.

7. As to claims 8, 26, and 44, none of Bresler, Lin, or Dohnomae expressly discloses a method wherein a halftone binary bitmap file is generated from a high resolution scan of a halftone film. Applicant has not disclosed that a high resolution scan of halftone film provides an advantage over other methods of obtaining a halftone binary bitmap file. One of ordinary skill in the art would have expected Applicant's invention to perform equally well with a halftone image from any other source because

the image is still a halftone image being filtered. Therefore, it would have been obvious to one skilled in the art to modify Bresler, Lin, and Dohnomae to obtain the invention as specified in claims 8, 26, and 44.

8. As to claims 9, 27, and 45, Lin discloses a method wherein the halftone binary bitmap file has a resolution of between 600 dpi and 6000 dpi (col. 2, lines 15-34).

9. As to claims 10, 28, and 46, none of Bresler, Lin, or Dohnomae expressly discloses a halftone binary bitmap file with a resolution between 1800 and 3000 dpi. Applicant has not disclosed that resolution between 1800 and 3000 dpi provides an advantage over other resolutions. One of ordinary skill in the art would have expected Applicant's invention to perform equally well with a lower resolution such as the one disclosed by Lin (col. 2, lines 15-34) because the image is still a halftone image being filtered. Therefore, it would have been obvious to one skilled in the art to modify Bresler, Lin, and Dohnomae to obtain the invention as specified in claims 10, 28, and 46.

10. As to claims 11, 29, and 47, Bresler discloses a method wherein the lookup table is determined by the color separation that the halftone binary bitmap file represents (col. 14, lines 1-7; the method is done on each separation).

11. As to claims 13, 31, and 49, Lin discloses a method wherein the lookup table is determined by a halftone binary bitmap file screen ruling (col. 10, lines 31-67; col. 11, lines 1-6).

12. As to claims 15, 33, and 51, Lin discloses a method wherein the preset sample rate is determined by a screen ruling of the halftone binary bitmap file (col. 9, lines 40-56; sample rate is based on resolution of a file).

13. Claims 2-6, 20-24, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bresler in view of Lin and Dohnomae and further in view of Fan (U.S. Patent 5,339,170).

14. As to claims 2, 20, and 38, Bresler in view of Lin and Dohnomae does not disclose a method wherein a first digital filter is a blur filter, an edge enhancement filter, an averager filter, a high pass filter, a low pass filter, or a band pass filter. Fan, however, discloses a method that uses a low pass filter in a horizontal and vertical direction (col. 4, lines 12-44). The motivation for this is to eliminate loss of detail (col. 4, lines 4-11). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to use a low pass filter in a horizontal and vertical direction in order to eliminate loss of detail as taught by Fan.

15. As to claims 3, 21, and 39, Bresler in view of Lin and Dohnomae does not disclose a method wherein the first digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter. Fan, however, discloses a method that uses a low pass filter in a horizontal and vertical direction (col. 4, lines 12-44). The motivation for this is to eliminate loss of detail (col. 4, lines 4-11). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to use a low pass filter in a horizontal and vertical direction in order to eliminate loss of detail as taught by Fan.

16. As to claims 4, 22, and 40, Bresler in view of Lin and Dohnomae does not disclose a method wherein the second digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter. Fan, however, discloses a method that uses a low pass filter in a horizontal and vertical direction (col. 4, lines 12-44). The motivation for this is to eliminate loss of detail (col. 4, lines 4-11). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to use a low pass filter in a horizontal and vertical direction in order to eliminate loss of detail as taught by Fan.

17. As to claims 5, 23, and 41, Bresler in view of Lin and Dohnomae does not disclose a method wherein the second digital filter is an averager filter. Fan, however, discloses a method that uses a low pass filter in a horizontal and vertical direction (col. 4, lines 12-44; col. 7, lines 54-58; a low pass filter is an averager filter). The motivation for this is to eliminate loss of detail (col. 4, lines 4-11). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to use an averager filter in a horizontal and vertical direction in order to eliminate loss of detail as taught by Fan.

18. As to claims 6, 24, and 42, Bresler in view of Lin and Dohnomae does not disclose a method wherein the second digital filter is a low pass filter. Fan, however, discloses a method that uses a low pass filter in a horizontal and vertical direction (col. 4, lines 12-44). The motivation for this is to eliminate loss of detail (col. 4, lines 4-11). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and

Dohnomae to use a low pass filter in a horizontal and vertical direction in order to eliminate loss of detail as taught by Fan.

19. Claims 12, 14, 16-18, 30, 32, 34-36, 48, 50, and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bresler in view of Lin and Dohnomae and further in view of Eschbach (U.S. Patent 5,208,871)

20. As to claims 12, 30, and 48, Bresler in view of Lin and Dohnomae does not disclose a method further comprising the step of processing the halftone binary bitmap file at a specific screen ruling and a specific screen angle. Eschbach, however, discloses a method of sampling a halftone bitmap file that takes into account resolution, size, and orientation of a bitmap file (col. 3, lines 1-49; screen ruling is the ratio of resolution to size). The motivation for this is to eliminate artifacts in a converted image (col. 2, lines 22-26). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to sample a bitmap file taking into account screen ruling and angle in order to eliminate artifacts as taught by Eschbach.

21. As to claims 14, 32, and 50, Bresler in view of Lin and Dohnomae does not disclose a method wherein the lookup table is determined by a halftone binary bitmap file screen angle. Eschbach, however, discloses a method of sampling a halftone bitmap file that takes into orientation of a bitmap file (col. 3, lines 1-49) that can be performed with a lookup table (col. 7, lines 43-58). The motivation for this is to eliminate artifacts in a converted image (col. 2, lines 22-26) and reduce the number of calculations the invention must perform. It would have been obvious to one skilled in

the art to modify Bresler in view of Lin and Dohnomae to use a lookup table taking into account screen angle in order to eliminate artifacts quickly as taught by Eschbach.

22. As to claims 16, 34, and 52, Bresler in view of Lin and Dohnomae does not disclose a method wherein the preset sample rate is determined by a screen angle of the halftone binary bitmap file. Eschbach, however, discloses a method of sampling a halftone bitmap file that takes into account resolution, size, and orientation of a bitmap file (col. 3, lines 1-49; screen ruling is the ratio of resolution to size). The motivation for this is to eliminate artifacts in a converted image (col. 2, lines 22-26). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to sample a bitmap file taking into account screen ruling and angle in order to eliminate artifacts as taught by Eschbach.

23. As to claims 17, 35, and 53, Bresler in view of Lin and Dohnomae does not disclose a method wherein the preset sample rate is determined by a screen angle and a screen ruling of the halftone binary bitmap file. Eschbach, however, discloses a method of sampling a halftone bitmap file that takes into account resolution, size, and orientation of a bitmap file (col. 3, lines 1-49; screen ruling is the ratio of resolution to size). The motivation for this is to eliminate artifacts in a converted image (col. 2, lines 22-26). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to sample a bitmap file taking into account screen ruling and angle in order to eliminate artifacts as taught by Eschbach.

24. As to claims 18, 36, and 54, Bresler in view of Lin and Dohnomae does not disclose a method wherein the preset sample rate is determined using a halftone bitmap

screen ruling and a halftone bitmap screen angle. Eschbach, however, discloses a method of sampling a halftone bitmap file that takes into account resolution, size, and orientation of a bitmap file (col. 3, lines 1-49; screen ruling is the ratio of resolution to size). The motivation for this is to eliminate artifacts in a converted image (col. 2, lines 22-26). It would have been obvious to one skilled in the art to modify Bresler in view of Lin and Dohnomae to sample a bitmap file taking into account screen ruling and angle in order to eliminate artifacts as taught by Eschbach.

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M. Richer whose telephone number is (571) 272-7790. The examiner can normally be reached on weekdays from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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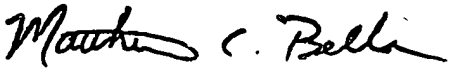

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